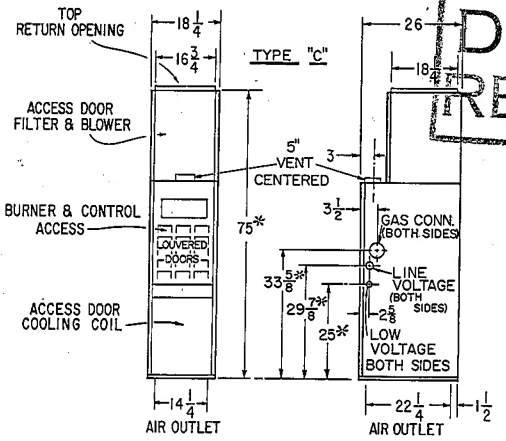
bryant ®

GAS FIRED COUNTERFLOW FURNACE

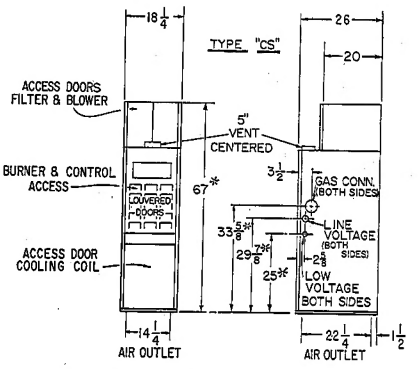
Product Data Sheet 394C

Size 100

PDS 394C.100.4 8/28/68



Shipping weight 210 lbs



NOTE: Blower casing and furnace shipped individually.
*Add 1 1/4" when installed with base on combustible floor.

NOTE: Both drawings - *Add 1¼" when installed with base on combustible floor.
NOTE: Both drawings - Blower casing and furnace shipped individually.

HEATING RATINGS AND CAPACITIES

Rating[1]	Input[2]	BTUH	100,000
	Output	BTUH	80,000

[1]Ratings are for elevations up to 2000 ft.; for higher altitudes, reduce ratings 4% for each 1000 ft. above sea level.
[2]20% reduction in input allowed

COMPONENT INFORMATION

Motor—Type L—4 Speed	⅛ HP (Sh. Pole)
Power Supply	120-60-1
Full Load Amps	6.3
Speed & Rotation	1050 CCW*
Motor—Type E—4 Speed	⅓ HP (PSC)
Power Supply	120-60-1
Full Load Amps	6.5
Speed & Rotation	1075 CCW*
Motor—Type B—1 Speed SF	⅙ HP (Split Ph.) 1.35
Power Supply	115-60-1
Full Load Amps	3.2
Speed & Rotation	1725 CW*
Motor Pulley Dia. & Bore	2.4" x ½"
Blower Pulley Dia. & Bore	4.8" x ¾"
Belt Width & Length	⅜" x 35"
Motor—Type C—1 Speed SF	⅓ HP (Split Ph.) 1.35
Power Supply	115-60-1
Full Load Amps	4.65
Speed & Rotation	1725 CW*
Motor Pulley Dia. & Bore	2.9" x ½"
Blower Pulley Dia. & Bore	5" x ¾"
Belt Width & Length	½" x 36"
Motor—Type X—1 Speed SF	½ HP (Split Ph.) 1.35
Power Supply	115-60-1
Full Load Amps	7.0
Speed & Rotation	1725 CW*
Motor Pulley Dia. & Bore	2.9" x ½"
Blower Pulley Dia. & Bore	4.7" x ¾"
Belt Width & Length	½" x 35"
Blower Wheel Dia. & Width	10 x 8
Bore—Direct Drive	½"
Bore—Belt Drive	¾"
Filter—Fiberglass**	10" x 20" x 1" (2)

*Rotation viewed from end opposite shaft.
**Use multi-velocity filters above 1000 CFM.

DRIVE TYPES

L—Multi-speed direct drive heating—minimum cooling
E—Multi-speed direct drive heating—maximum cooling with evaporator blower motor relay
B—Belt drive heating—minimum cooling
C—Belt drive heating and cooling
X—Belt drive heating—maximum cooling

CLEARANCES FROM COMBUSTIBLES

1" from casing sides, rear and bottom.
6" from casing front and vent connector.
Note: This furnace is approved for installation on a combustible floor when installed with a matching Bryant combustible floor base.

STANDARD GAS CONTROL OPTIONS

Control Type	Gas	
D2	Propane	100% shut-off automatic pilot; Bryant diaphragm valve; transformer.
D4	City	Bryant diaphragm valve; Bryant automatic pilot; gas pressure regulator; transformer.
D5	City	100% shut-off for natural gas. Same as D4 except uses thermocouple pilot and pilot relay.

CONTROL INFORMATION

Burners (Steel Slotted Port)	4
Orifice Drill Size—Propane	54
—Natural	41
D2 Control (Prop.) Regulator	None Required
Valve	½ A641
Escapement Orifice Drill Size	80
Pilot—MH Q314A	.011 Orifice
D4 Control (Nat.) Regulator	Comb. Thermac ½ VR-1
Valve	½ A641
Escapement Orifice Drill Size	80
Pilot—732	.016 Orifice
D5 Control (Nat.) Regulator	Comb. Thermac ½ VR-1
Valve	½ A641
Escapement Orifice Drill Size	80
Pilot—MH Q314A	.018 Orifice

Manual Shut-Off Cock and Pilot Cock are standard equipment. Supplied as separate parts except where included as integral part of the combination regulator.

CONNECTIONS

Gas Supply NPT—Natural		½
—Propane		½
Electric Supply—Direct Drive		120-60-1
—Belt Drive		115-60-1
Branch Circuit Wire Size	AWG	14
Fuse Size	AMPS	15
Control Circuit Power Avail.*		
Type L, B, C, X	VA	10.8
Type E	VA	7.2
Flue Size	Inches	5 (Oval)
Duct—Top Inlet		
Type C	D x W	18¼ x 16¾
Type CS	D x W	20 x 18¼
Duct—Bottom Discharge		
From Unit	D x W	22¼ x 14¼
From Combustible Floor Base	D x W	21½ x 14⅛

*External to unit.

AIR FLOW FOR INDICATED AIR TEMPERATURE RISE*

TEMP RISE °F	70	75	80	85	90	95	100
AIR FLOW CFM	993	926	869	818	772	732	695

*At Rated Input

AIR DELIVERY PERFORMANCE

Air Delivery CFM	EXTERNAL STATIC PRESSURE AVAILABLE							
	Type L Motor				Type E Motor			
	Hi	Med	Med-Lo	Lo	Hi	Med	Med-Lo	Lo
700	.62	.49	.30					.67
800	.48	.30						.47
900	.32						.72	
1000	.00					.72	.58	
1100						.60	.38	
1200					.65	.45	.12	
1300					.54	.28		
1400					.41	.08		
1500					.28			
1600					.13			

Above data gives Cfm under typical field application (i.e. 125 volts).

Air Delivery CFM	TYPE B MOTOR (⅙ HP) Blower Speed in RPM at Indicated Static Pressure								
	0.0″	0.1″	0.2″	0.3″	0.4″	0.5″	0.6″	0.7″	0.8″
700			630	710	775	845			
800		600	670	740	815				
900		645	715	790	850				
1000	620	695	765						
1100	670								

Drive Range 583-863 RPM

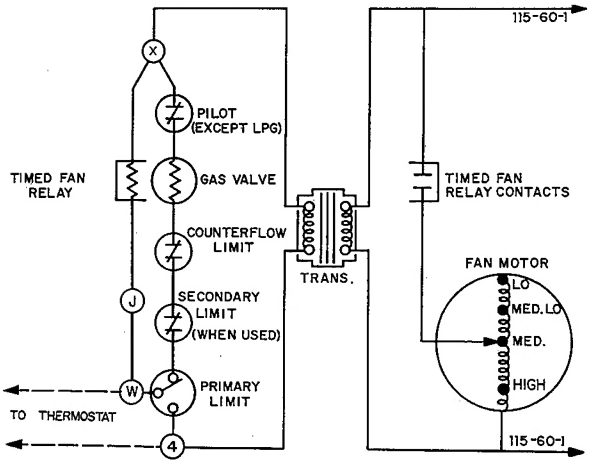
Air Delivery CFM	TYPE C MOTOR (⅓ HP) Blower Speed in RPM at Indicated Static Pressure								
	0.0″	0.1″	0.2″	0.3″	0.4″	0.5″	0.6″	0.7″	0.8″
700				710	775	845	905	965	
800			670	740	815	875	935	995	
900			715	790	850	910	965		
1000		695	765	830	890	945	1000		
1100	670	745	815	875	930	985			
1200	725	805	865	920	975				
1300	800	860	920	975					
1400	855	920	975						

Drive Range 665-1000 RPM

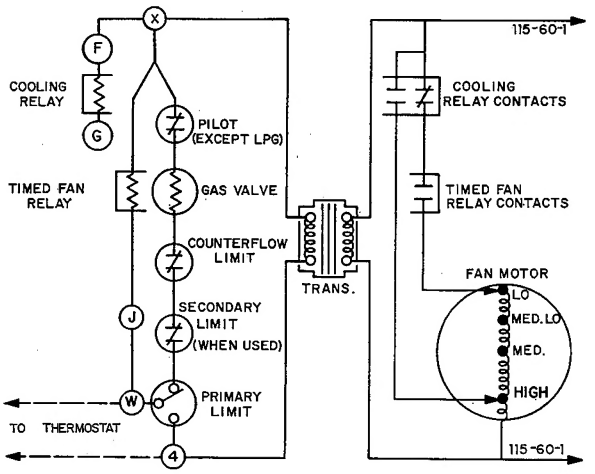
Air Delivery CFM	TYPE X MOTOR (½ HP) Blower Speed in RPM at Indicated Static Pressure								
	0.0″	0.1″	0.2″	0.3″	0.4″	0.5″	0.6″	0.7″	0.8″
700				710	775	845	905	965	1035
800				740	815	875	935	995	1055
900			715	790	850	910	965	1025	
1000			765	830	890	945	1000	1055	
1100		745	815	875	930	985	1040		
1200	725	805	865	920	975	1030			
1300	800	860	920	975	1025				
1400	855	920	975	1025					
1500	925	975	1025						
1600	975	1030							

Drive Range 708-1062 RPM

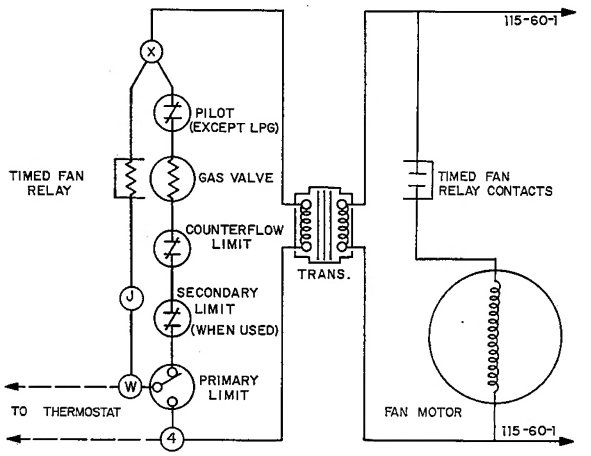
LINE-TO-LINE SCHEMATIC UNIT WIRING DIAGRAMS



Type L



Type E



Types B, C, X